

WINTER
2022

The Official Publication of the Water Environment Association of Utah

DIGESTED news

Celebrating 50 Years of Clean Water

MID-YEAR CONFERENCE RECAP

UTAH CULTURAL CELEBRATION CENTER
NOVEMBER 15, 2022

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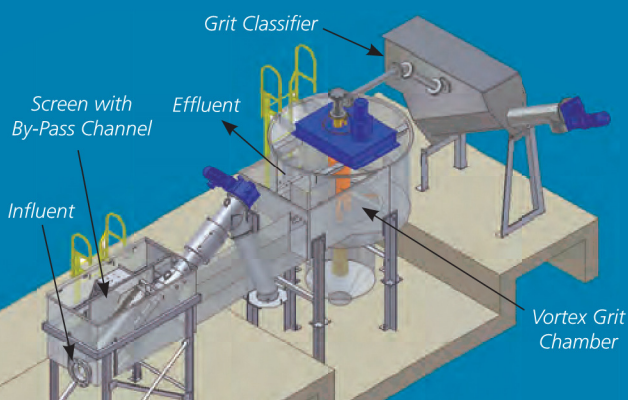
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Sarah Ward

We Are Great Because of Each of You

Dear WEAU Friends,

The WEAU Board held leadership training for all committee members in October. The training was a great way to get all the committee members together and discuss how we could help each other with our volunteer responsibilities – a big shout-out to all our outstanding committees. WEAU is successful because of their efforts.

The WEAU committees have been hard at work planning training and events. I am always impressed with the efforts made by committee chairs to pull off training and events. If you are interested in becoming part of any committee, please get in touch with me, and I will find a committee that could use your expertise.


The Mid-Year Conference has come and gone, and now the Annual Conference committee is starting preparations. Look for opportunities to participate in the Annual Conference by

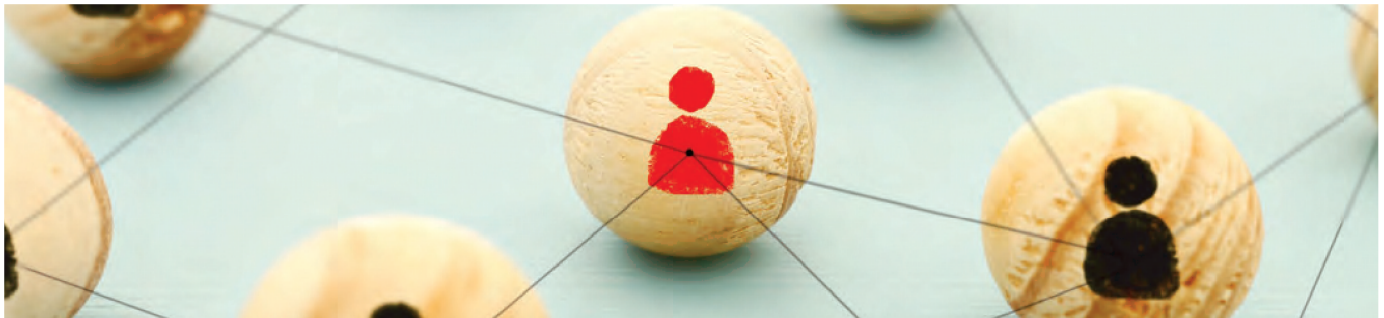


submitting an abstract, joining an Operations Challenge team, assisting with the awards interviews, becoming a moderator, and/or joining one of the social activities. Details will be available on www.weau.org.

WEAU recognized 10 mentors at the Mid-Year Conference. It was great to recognize those individuals and let them know how much impact they have had on the industry. We have hundreds of mentors in the industry, and nominations will continue to be accepted for recognition at the Annual Conference. Please submit your mentor names through an online form at <https://forms.gle/X7r4srnBDQjcGWkeA> or by scanning the below QR code.

Thank you for being a member. We are great because of each of you.

Sincerely,
Sarah Ward 



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WATER AND WASTEWATER

Fine Modern Art

Bryan Mansell

At the Young Professionals Dinner that I crashed (and helped host) after the WEAU Mid-Year Conference, a discussion around modern art and art galleries broke out at one end of the table. Folks shared experiences about what art they had seen, galleries they had visited, which art they considered legitimate, and which they didn't. That discussion prompted a memory in my mind of going on a field trip to an art display at BYU as a grade school student. I distinctly remember a piece of torn cardboard on display. I also remember one of the adults saying it was worth a large amount of money. That's about the point when I really started to question the sanity of adults in my life. I thought, "I could make that kind of art, but no one is going to pay me a bunch of money to tear cardboard."

As an adult, I've come to appreciate that some art is more abstract. Sure, I don't love looking at Picasso's art, but I can appreciate that it took tremendous talent to create, regardless of how weird it is to me. For example, right now on Etsy, you can order a very nice watercolor of a duck with a Nicolas Cage head. I wouldn't waste my money on it, but I must admit the artist is very talented. Where I draw the line as to what should be considered art is whether



Title: Heart to Heart. (Bryan has heart to heart with man in despair in art gallery).

my six-year-old could replicate it in under a minute. So, naturally, I take exception when I see a canvas with paint splattered, a torn piece of cardboard, a hand smear of graphite across a page, or a wrinkled piece of fabric. Perhaps I'm missing the mark and my child's bedroom is literally a modern art display, but I just don't see it.

Coincidentally, there was an art display this year on the main floor of the Utah Cultural Celebration Center where the Mid-Year Conference is held. I glanced in there and noticed a man sitting in a chair. He appeared to be in despair, ragged and torn, his very being falling to pieces. I found myself drawn to him to offer emotional support. In what seemed like only a moment, struggles were shared, hopes

and dreams laid bare, anguish acknowledged, tears wiped dry, and hearts softened. I never got this stranger's name; I only hope he felt better after our talk. I know I did.

We work in a left-brained industry, where scientific evidence and data are basically king. But let's not forget to turn on our right brain enough to be creative, enjoy, and feel passion about the work we do, to be vulnerable and to see others as people. Mike Chandler taught these principles beautifully in a recent training for WEAU committee chairs.

As I consider these experiences, I'm inclined to suggest that working and thriving in a modern, left-brained industry without becoming a callous tardigrade could be considered its own legitimate form of fine modern art. Let's all be artists in this way. **DM**

FIND THE HIDDEN GOLDEN SLUDGE SHOVEL!*

Each quarter, *Digested News* has this golden sludge shovel icon hidden somewhere in the content of its pages.

Be the first to find it and email the editor (digestednews@weau.org) the correct page number to **win a \$25 Amazon Gift Card.**

Emails should include:

- Subject: I found the golden shovel
- Correct page number
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Winners will be notified directly and named in the next issue of *Digested News*.

*For those of you new to WEAU, volunteers who give notable time and service to WEAU are awarded a "5S" golden lapel pin shovel. With that award, they become members of the **Select Society of Sanitary Sludge Shovelers**. WEAU is always looking for volunteers and maybe one day, you too can become a 5S member. **DM**



**CONGRATS TO:
SHAWN WILSON OF
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Have feedback or suggestions? We'd love to hear from you about what parts of *Digested News* you find helpful, or about what you'd like to see. Email us at digestednews@weau.org.



Let's Get Personal

By the WEAU Collection Committee

1. **What does PPE stand for?**
 - A. Personnel Protected Equally
 - B. Proposed Protection Equipment
 - C. Protection Project Essentials
 - D. Personal Protection Equipment

2. **PPE will only protect you _____.**
 - A. When its worn
 - B. When it's the correct protection
 - C. When you know how to use it
 - D. All of the above

3. **How often should PPE be worn?**
 - A. When you plan on getting hurt
 - B. All the time
 - C. While doing hazardous work
 - D. Before the boss shows up

4. **Why should a hard hat be worn when working in a manhole?**
 - A. To protect from falling objects
 - B. Protect from sunburn
 - C. To protect from pathogens
 - D. Protection from arachnids

5. **If you have a question about what type of PPE is required, whom should you ask?**
 - A. _____, they have been here the longest
 - B. Supervisor
 - C. Lead Tech
 - D. Inspections

6. **What specific PPE do you use doing your job?**

_____.

7. **Who is legally responsible for employee safety, and who has more to lose if it's not used?**
 - A. Safety department and employee
 - B. Employee and Coworkers
 - C. Supervisor and safety department
 - D. Supervisor and employee

8. **The proper glove can protect you from what types of hazards?**

_____.

9. **To know which PPE to use with which chemical, reference the _____.**
 - A. SSS
 - B. STP
 - C. SDS
 - D. SCS

10. **In your job, what PPE needs to be added or changed to make your job safer?**

_____.

Answers

1-D, 2-D, 3-C, 4-A, 5-B, 6-Any, 7-D, 8-Any, 9-C, 10-Any



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Certification Training Quiz

By Dan Olson

1. **Most municipalities have stopped constructing combined sewers and are removing existing combined sewers for this reason.**
 - A. Combined sewers deposit raw wastewater in rivers and lakes
 - B. Combined sewers affect WRRF operation during and after storm events
 - C. Combined sewers are difficult to keep clean and can generate odors
 - D. Combined sewers are expensive to construct due to larger pipe diameters
2. **Which technology are you likely to find in a WRRF headworks?**
 - A. Flow measurement
 - B. Primary clarifier
 - C. Ultraviolet disinfection
 - D. Pond
3. **The velocity of wastewater through a rectangular grit basin should be approximately _____ to allow grit to settle while keeping lighter particles in suspension.**
 - A. 0.15 m/s (0.5 ft/sec)
 - B. 0.3 m/s (1.0 ft/sec)
 - C. 0.6 m/s (2.0 ft/sec)
 - D. 1.5 m/s (5.0 ft/sec)
4. **A primary clarifier is capable of removing _____.**
 - A. Soluble BOD
 - B. Ammonia
 - C. Total suspended solids
 - D. Colloidal solids
5. **A WRRF using ponds for secondary treatment is equipped with a manual bar screen that has openings 5 cm (2 in) apart. What type of debris is most likely to be captured by this screen?**
 - A. Branches
 - B. Rags
 - C. Small rocks
 - D. Paper
6. **Secondary treatment uses chemicals or bacteria to increase the size of particles in wastewater**
 - A. True
 - B. False
7. **Water resource recovery facilities with secondary treatment typically remove more than 85% of influent BOD5 and TSS.**
 - A. True
 - B. False
8. **Microorganisms in wastewater consume organic material in the wastewater to sustain themselves and reproduce.**
 - A. True
 - B. False
9. **Secondary treatment systems do not typically include a clarifier or other solids separation processes after biological treatment**
 - A. True
 - B. False
10. **Ponds are typically unlined.**
 - A. True
 - B. False
11. **A well-functioning activated sludge process will be light tan to dark brown and have a small amount of white to tan foam on the surface.**
 - A. True
 - B. False
12. **A rock media trickling filter should be completely submerged with no free space between the rocks.**
 - A. True
 - B. False
13. **Biological treatment systems use the same microorganisms as natural systems but are engineered to decrease treatment time by increasing the numbers of microorganisms in the treatment process.**
 - A. True
 - B. False
14. **Disinfection uses chemicals or UV light to sterilize treated wastewater.**
 - A. True
 - B. False
15. **Which of the following treatment processes would be considered biological treatment?**
 - A. Alum addition for phosphorus removal
 - B. Activated sludge
 - C. Belt filter press
 - D. Ultraviolet disinfection
16. **A pond system is categorized as this type of treatment.**
 - A. Primary
 - B. Suspended growth
 - C. Fixed growth
 - D. Physical
17. **Where do the microorganisms in ponds, trickling filters, and activated sludge systems come from?**
 - A. They are added by the operator
 - B. They are naturally present in the influent wastewater
 - C. They spontaneously generate from suspended solids

18. This term is used to describe a collection of microorganisms growing on and attached to a media surface such as a rock.
- Floc
 - Slime
 - Biofilm
 - Algae
19. In a pond treatment system, what is the purpose of the last pond in the series?
- Increases the risk of short-circuiting
 - Removes the biological solids produced in the first two ponds
 - Warms the wastewater before discharge
 - Acts as a primary clarifier or grit basin
20. What is the primary difference between a pond treatment system and an activated sludge system?
- Activated sludge recycles settled solids to the beginning of the process
 - Pond treatment systems use specialized, cold tolerant bacteria
 - Activated sludge systems use algae for treatment
 - Pond treatment systems perform better at higher elevation
21. For an activated sludge system, which of the following statements is FALSE?
- Activated sludge requires less time to treat wastewater than ponds
 - Activated sludge is a suspended growth biological process
 - Activated sludge uses fungus to treat wastewater
 - Activated sludge holds the biological solids longer than the wastewater
22. An example of a fixed-film treatment process is _____.
- Activated sludge
 - Pond
 - Rotating biological contactor
 - Clarifier
23. Which two methods of disinfection are most commonly used in domestic WRRFs?
- Ozone and chlorine
 - Chlorine and UV light
 - Bleach and ozone
 - Ultraviolet light and boiling
24. Match the unit process to its place in the liquid treatment side.
- | | |
|----------------------|--------------------------|
| A. Collection system | 1. Pretreatment |
| B. Grit basin | 2. Primary treatment |
| C. Primary clarifier | 3. Disinfection |
| D. Activated sludge | 4. Preliminary treatment |
| E. Chlorine addition | 5. Secondary treatment |
25. Draw a line from the liquid treatment type to its treatment goal.
- | | |
|--------------------------|---|
| A. Preliminary treatment | 1. Reduce number of bacteria and pathogen |
| B. Primary treatment | 2. Increase particle size for separation step |
| C. Secondary treatment | 3. Protect downstream equipment |
| D. Tertiary treatment | 4. Remove nitrogen and phosphorus |
| E. Disinfection | 5. Decrease size and cost secondary treatment |

Answers

- 1-B, 2-A, 3-B, 4-C, 5-A, 6-True, 7-True, 8-True
 9-False (The purpose of secondary treatment is to increase the size of particles remaining in the influent after screening, dewatering, and primary sedimentation. The biological solids grown during secondary treatment must be separated from the treated wastewater before discharge using a secondary clarifier or other solids separation process.)
 10-False. Lagoons are lined to prevent contamination of underlying groundwater. They may be lined with natural clay (bentonite) or with a synthetic liner.
 11-True
 12-False. Trickling filters are so named because the wastewater is trickled down over the media surface. Free space between pieces of media is required for air to penetrate and provide oxygen to the microorganisms that make up the biofilm.
 13-True
 14-False. Disinfection reduces the numbers of bacteria and pathogens in the final effluent, but it does not sterilize the wastewater. Sterilization is the complete destruction or inactivation of all living things.
 15-B, 16-B, 17-B, 18-C, 19-B, 20-A, 21-C, 22-C, 23-B,
 24-1=A, 2=C, 3=E, 4=B, 5=D
 25-1=E, 2=C, 3=A, 4=D, 5=B

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Operations Challenge 2022: New Orleans

Two teams from WEAU went to New Orleans this fall where they competed in the National Operations Challenge event. The two teams included CVWRF Wasted Gas (overall winners of the state competition), and a composite team, Wasatch All Stars. CVWRF Wasted Gas team members included Chad Fryrear (Coach), Austin Petersen, Brock Thompson, Rodger Orullian, and Trey Sandness. The Wasatch All Stars team members included Jim Giles (Coach) of Snyderville Basin WRD, Dalton Morris of Cottonwood Improvement District, Jessie Chatwin of North Davis Sewer District, Lance Smith of Central Weber Improvement District, and Zachary Richards of Salt Lake City. Out of 45 teams from around the nation, CVWRF Wasted Gas took 11th overall and the Wasatch All Stars took 20th overall and won the best uniform award! Both teams did great, competed well, and had a blast. Utah had a lot of support down there in New Orleans and it was nice to see the event up and running at full capacity. We all want to give a shout-out to our fellow employees that covered our normal duties while we were away and to the managers and supervisors that supported us in participating in the Operations Challenge, without which support it would not have been possible. Thank you to everyone.

The PWO crew is gearing up for the 2023 WEAU Annual Conference and a new Operations Challenge season that starts in January 2023. We hope to have a big turn out with new and returning familiar faces ready to compete this next year in St. George on April 25-28, 2023. [DRI](#)

“The PWO crew is gearing up for the 2023 WEAU Annual Conference and a new Operations Challenge season that starts in January 2023.”



CVWRF's Wasted Gas Team



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Marie Owens, PE, AE2S Engineer



Water Engineering and Beyond

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WEAU Young Professionals Update

Thanks for joining us at the Bees game and Mid-Year Conference! We had 141 members, family, and friends attend the Bees Game this year. There was an awesome assortment of raffle prizes, fireworks, and a whole lot of fun! Hope to see everyone at the Bees game again next year!

If you or anyone you know is under the age of 35 or has less than seven years of experience in the water/wastewater industry, please let us know as we are always looking to get more YPs involved. We'll be hosting a panel in late January/early February for YPs to learn more about the committees that make up WEAU and how to get involved! If you have any questions, please contact Amanda Stoudt (astoudt@brwncald.com) or Brandon Wyatt (buyatt@bowencollins.com).



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2022 MID-YEAR CONFERENCE RECAP

UTAH CULTURAL CELEBRATION CENTER
NOVEMBER 15, 2022

The 2022 Mid-Year Conference was a huge success. We want to thank all those who presented and especially those attended. We hope to see you all again 2023. [DR](#)

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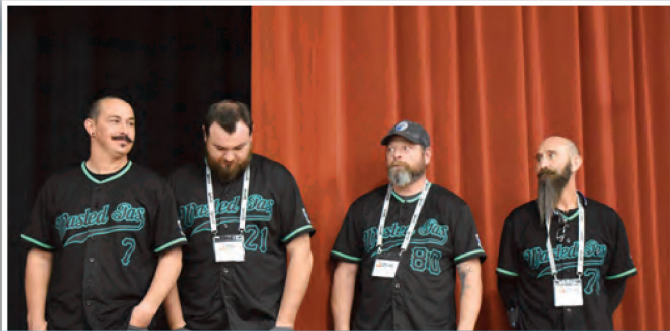




President Ward addresses WEAU Midyear attendees, halfway thru her term.



WEAU members gather for lunch.



CVWRF Wasted Gas recognized for achievement at WEFTEC Operations Challenge.



Wasatch All Stars recognized for achievement at WEFTEC Operations Challenge.



Dustin Lewis (left) and Nate Cloward (right) announce Ops Challenge Teams and upcoming season.



Marlo Davis shares experience at international Ops Challenge event in Colombia.



Matt Wiest encourages award nominations and interview participation.



WEAU Scholarship winners Matt Goodrich (middle) and Tyler Byrum (right) recognized, along with Brad Johnson and Colton Campbell.



Rob Jaterka announces Okey Student Scholarship winner, Christian Logan.



Nathan Zaugg announces Stockholm Junior Water Prize Winner, Ruchi Agarwal.



Stockholm Junior Water Prize Winner, Ruchi Agarwal, shares summary of her scientific research.



Amanda Stoudt engages young professionals.

RECOGNIZING HONORARY MENTORS

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 Blair Blonquist



WEAU recognizes its 2022 Honorary Mentors.

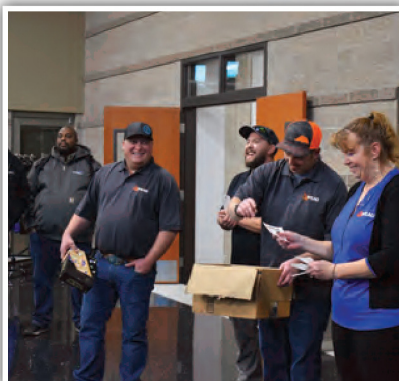


Mentors (from left) Mike Chandler, Blair Blonquist recognized.



Mentors (from left) Leland Myers, Scott Rogers, Jeff MacFarland recognized.

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Mark Your Calendars! WEAU Annual Conference Dixie Center, St. George, UT April 25-28, 2023

Watch for more details at www.weau.org.

CALL FOR ABSTRACTS

The Annual Conference Committee is accepting abstracts for presentations at the 2023 WEAU Annual Conference. All topics related to water quality, collection, treatment, compliance, utility management, or other related topics will be considered.

The conference will be held April 25-28, 2023 at the Dixie Center in St. George, UT.

Submit abstracts online at www.weau.org.

Abstracts will be reviewed and you will be notified if your presentation is accepted. The presentations will be made to attendees at the conference and formal paper submissions are not required.

DEADLINE: DECEMBER 21, 2022

ANNUAL PRECONFERENCE SESSION

April 25, 2023 | Morning Workshop | St. George

Effective Utility Management Workshop: Your Path to Sustainability This workshop will help utilities address a full range of challenges and move toward sustainable management of their operations and infrastructure.

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- Move from reacting to the “hot priorities” of the day to proactively planning for the future.
- Protect your current and future infrastructure investments and ensure that your workforce is motivated and equipped to address the challenges they face every day.

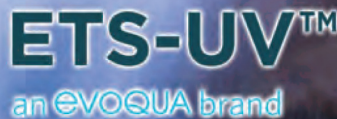
Utilities will learn how to make improvements in the 10 Attributes and Five Keys to Management Success, at a pace consistent with their most pressing challenges. [Dn](#)



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2022 WEAU AWARDS NOMINATIONS

DUE FRIDAY, DECEMBER 23, 2022

CATEGORIES

OUTSTANDING PLANT/SYSTEM AWARDS

- Treatment Plant – Under 5 MGD
- Treatment Plant – Over 5 MGD
- Lagoon – Discharging
- Lagoon – Non-Discharging
- Laboratory
- Collections System – Under 5 MGD
- Collections System – Over 5 MGD

OUTSTANDING PROGRAM AWARDS

- Pretreatment Program
- Biosolids Program
- Safety Program

OUTSTANDING INDIVIDUALS AWARDS

- Treatment Plant Operator – Under 5 MGD
- Treatment Plant Operator – Over 5 MGD
- Collections System Operator – Over 5 MGD
- Collections System Operator – Under 5 MGD
- Supervisor
- Pretreatment Specialist
- Maintenance Specialist
- Laboratory Technician
- Young Professional

Forms available online at www.wEAU.org or from the WEAU Awards Committee. For more information, contact Matt at 801-463-9900 or by email at awardsweau@gmail.com.

NOMINATE TODAY





The Quarter Century Operator Club

WEAU would like to make all of those that work in the wastewater field aware of the requirements to be eligible for the Quarter Century Operator Club

The Quarter Century Operator Club recognizes operators of wastewater treatment facilities for their service and dedication in a difficult and dangerous profession. The club was created under the sponsorship of Frank Woodbury Jones, who served as the Clubs' first registrar.

Eligibility Criteria

- Member of WEF for a minimum of five consecutive years immediately preceding application.
- Significant, full-time participant in the water environment profession for a minimum of 25 years, 10 years of which must have been in active participation in the day-to-day collections, maintenance, operations, laboratory, or management of a wastewater transportation or treatment facility.
- Completed and signed application (found on the WEF website under Quarter Century Operator Club).

Applications Accepted From: WEF Professional Wastewater Operations Members

Email or Mail Applications to:

Water Environment Federation Awards Program

Email: Tori Cox (tcoc@wef.org)

Manager, Association Engagement

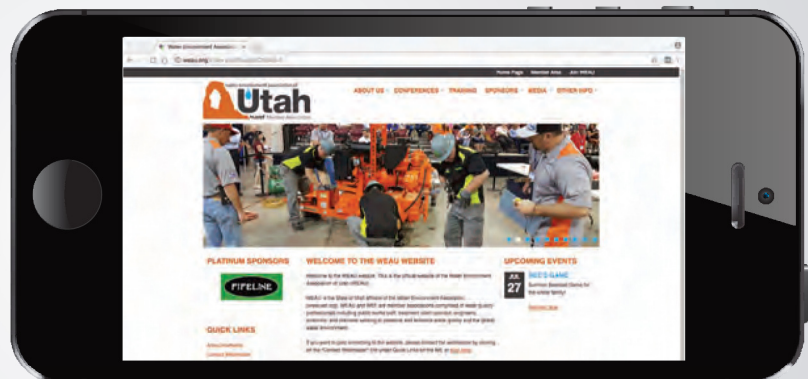
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If you have questions and want to talk to a local, feel free to reach out to Chad Burrell, at cburrell@sbwrd.org or 435-659-5805. [bn](#)

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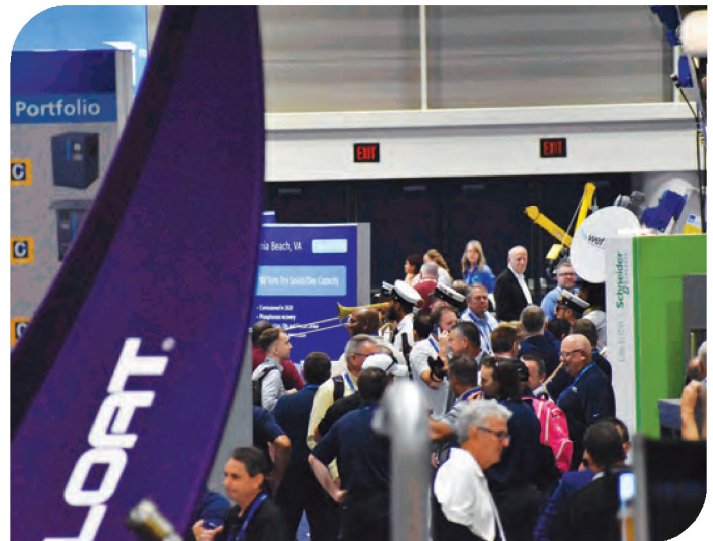
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WEAU ATTENDS WEFTEC IN NEW ORLEANS

WEFTEC 2022, the 95th Annual Technical Exhibition and Conference, took place in New Orleans, LA at the Ernest N. Morial Convention Center on October 8-12, 2022. The theme was Create Connections, Transform Tomorrow. Attendees were able to meet and network with other water and wastewater professionals, explore the Exhibit Hall, and learn through WEFTEC's technical sessions. As the event was in New Orleans, attendees were also excited to experience the city in its uniqueness – some of which was shown at the conference, like the jazz band promenade that marched through the Exhibit Hall.

This year, WEAU was represented by two teams at WEFTEC 2022: CVWRF Wasted Gas and Wasatch All Stars. The following photos were taken during competition, showing off our teams in action. [D&A](#)



WASATCH ALL STARS



Photo by Kieffer Photography



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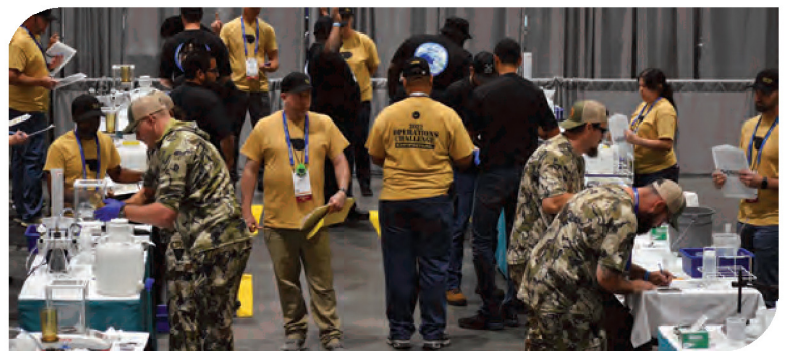
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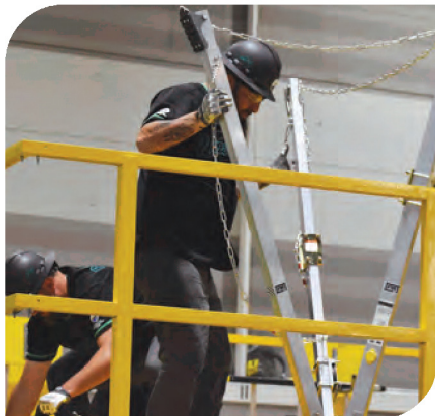
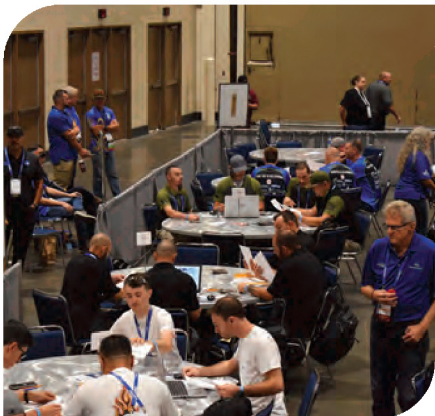
CVWRF WASTED GAS



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INDUSTRIAL ELECTRICAL SYSTEM: STANDARD FOR ACCEPTANCE TESTING SPECIFICATIONS

By Navneet Prasad, Electrical Controls Engineer, CVWRF,
and WEAU Digital Water Committee Chair

Construction, especially large-scale construction at a 24-7 operation like a water reclamation facility, can be overwhelming for everyone – owners, engineers, construction managers, and general contractors. That’s why pre-planning and coordination are such important activities that take place before any construction projects begin. While following the right steps to successfully commission unit process equipment and systems is extremely important, those general steps are relatively well-understood by contractors and engineers that work in this industry compared to the processes specific to commissioning electrical systems. Electrical and control systems are treated as the last piece of the puzzle on construction projects; and sometimes, amid the complexity of construction, some of the processes and activities required for preparing the electrical and control systems get missed or completed in the wrong order which can lead to delays in commissioning and start-up schedules.

Below are the steps that need to be followed to get your electrical equipment and systems ready for start-up after the engineering design is completed and the project has been awarded.

1. Power System Study.
 - o Draft Power Systems Study is submitted for approval
2. NETA Testing.
 - o NETA testing firm to implement settings from Power Systems Study during NETA Testing onsite. General Contractor and Electrical Contractor (typically subcontractor) to coordinate and implement recommendations from Manufacturers for equipment settings.
3. Electrical Contractor/Equipment Supplier to configure MCC buckets and/or program the Smart buckets.
4. Electrical Contractor/Equipment Supplier to configure MCC buckets and/or program the VFDs.
5. Pre-Commissioning, Commissioning and Startup activities are performed.
6. Draft Power Systems Study is adjusted as necessary based on Startup and submitted as Final Power Systems Study for approval and record.

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As an industry professional, it is important to be aware of the steps involved in the commissioning of the Electrical systems. American National Standards Institute (ANSI) and InterNational Electrical Testing Association (NETA) came up with a Standard for Acceptance Testing Specifications (ATS) for Electrical Power Equipment and Systems. Owners need to hire ANSI/NETA accredited testing organizations for conducting the Power System Study and the NETA testing of the electrical equipment. They will be following the above-mentioned Standard Acceptance Testing Specifications.

These specifications are designed to assure that tested electrical equipment and systems are operational, are within applicable standards and manufacturer's tolerances, and are installed in accordance with design specifications. Use the ANSI/NETA ATS-2021¹ as a guide to ensure that electrical systems and devices not only meet project specifications but that the manufacturer of the equipment supplied a product that will perform safely and reliably for many years to come. The NETA Acceptance Testing Specifications was developed for use by those responsible for assessing the suitability for initial energization of electrical power equipment and systems and to specify field tests and inspections that ensure these systems and apparatus perform satisfactorily, minimizing downtime and maximizing life expectancy.

The owner and testing organizations need to be aware of the division of responsibility. These are listed in detail below.

The Owner's Representative²

The owner's representative shall provide the testing organization with the following:

1. A short-circuit analysis, a coordination study, and a protective device setting sheet.
2. A complete set of electrical plans and specifications, including all change orders.
3. Drawings and instruction manuals applicable to the scope of work.
4. An itemized description of equipment to be inspected and tested.

5. A determination of who shall provide a suitable and stable source of electrical power to each test site.
6. A determination of who shall perform certain preliminary low-voltage insulation-resistance, continuity, and low-voltage motor rotation tests prior to and in addition to tests specified.
7. Notification of when equipment becomes available for acceptance tests. Work shall be coordinated to expedite project scheduling.
8. Site-specific hazard notification and safety training.

The Testing Organization

The testing organization shall provide the following:

1. All field technical services, tooling, equipment, instrumentation, and technical supervision to perform such tests and inspections.
2. Specific power requirements for test equipment.
3. Notification to the owner's representative prior to the commencement of any testing.
4. A timely notification of any system, material, or workmanship that is found deficient based on the results of the acceptance tests.
5. A written record of all tests and a final report.

The Book, titled *Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems*, issued by NETA Standards Review Council of the InterNational Electrical Testing Association (the latest edition from 2021 is out), should be referenced to understand more about the details of Power Systems Studies and Testing and Inspections procedures. Knowing the right process will lead to successful commissioning and successful completion of projects and avoid critical issues during start-up and regular operations.

References

- ¹ www.netaworld.org/standards/ansi-neta-ats
- ² *Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems*, issued by NETA Standards Review Council of the International Electrical Testing Association, May 21, 2017. [DN](#)

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We all strive to find the talent needed to fulfill requirements, but even when we do most organizations do not know what steps need to be done or what processes need to be followed. But most importantly, organizations typically do not have the tools to assess, monitor, and respond to actions.

For those in the water industry, there is an underlying responsibility we have not just to the organization but also to the public at large. We must keep our infrastructure safe and secure. Threat actors who can pierce security barriers can provide damage beyond the borders of the organization which can have far reaching effects. We need to be resilient in our efforts and vigilant in our monitoring.

At Maise, we have the staff, technology, and knowledge bases to address your security concerns and threats to your businesses. We would encourage you to contact us so we can assist you or even to provide a free assessment. Whatever you do, please make sure you are taking the steps you need to protect your organization, and in turn, the public. If you have any questions, please contact us.

—**Matthew Hutchings**

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2022-2023

DIGESTED NEWS BUYERS' GUIDE

The *Digested News* Buyers' Guide consists of two sections: a listing of products and services categories and an alphabetical listing of companies/organizations and contact information.

1. Search under CATEGORICAL LISTINGS for the products/services you require.
2. Note the companies listed under your products/services.
3. Refer to the COMPANY LISTINGS for those companies' contact information.

CATEGORICAL LISTINGS

Activated Carbon

Carbon Enterprises Inc.
The Coombs-Hopkins
Company/DC Frost Associates
Goble Sampson

Advanced Metering Infrastructure

Mountainland Supply Company

Aeration Systems/Diffusers

Aqua-Aerobic Systems, Inc.
The Coombs-Hopkins
Company/DC Frost Associates
Goble Sampson
isiWEST
Waterford Systems

Anaerobic Gas Safety Equipment

Goble Sampson

Asset Management

Brown and Caldwell

Blowers/Instruments/ Gas Detection

The Coombs-Hopkins
Company/DC Frost Associates
Goble Sampson

Catch Basin Cleaning Equipment

Val Kotter & Sons, Inc.

Coatings, Lining, and Corrosion Control

Integrity Inspection
Solutions, Inc.

Condition Assessment

Goble Sampson

Contractors

Archer Western Construction
DN Tanks
Twin D Inc.

CSO and Stormwater Equipment

Aqua-Aerobic Systems, Inc.

Design

Brown and Caldwell

Design-Build Services

Archer Western Construction
Carollo Engineers
DN Tanks
Goble Sampson

Electrical, Instrumentation/ Controls/Generators

The Coombs-Hopkins
Company/DC Frost Associates
Rocky Mountain
Valves & Automation

Siemens Measurement

Instrumentation
(C/o Waterford Systems,
local representative)
SKM Engineering

Enclosures, Shelters, and Buildings

Shelter Works

Engineers/Consultants

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Bowen Collins & Associates, Inc.
Brown and Caldwell
Carollo Engineers
Davidson Sales & Engineering
Forsgren Associates, Inc.
Goble Sampson
Maise Technology
SKM Engineering
Sunrise Engineering, Inc.

Environmental Contaminant Treatment Systems

Brown and Caldwell

Environmental Scientists/Services

Brown and Caldwell

Filtration

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Goble Sampson
Smith & Loveless, Inc.
Waterford Systems

Filter Media Remove/ Supply and Install

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Fine Screens

Smith & Loveless, Inc.

Fold'n'Form PVC Pipelining

Val Kotter & Sons, Inc.

Grit Removal

Smith & Loveless, Inc.

Grit Removal and Washing

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Company/DC Frost Associates
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Brown and Caldwell

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Twin D Inc.

Nutrient Removal

Brown and Caldwell
Smith & Loveless, Inc.

Odor Control

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Company/DC Frost Associates
Goble Sampson

Packaged Pump Stations

The Coombs-Hopkins
Company/DC Frost Associates
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Nickerson Company Inc.

Rocky Mountain
Valves & Automation
Waterford Systems

Packaged Treatment Plants

Lakeside Equipment Corporation

Pipe Cleaning and Televising

Integrity Inspection Solutions, Inc.
Twin D Inc.
Val Kotter & Sons, Inc.

Pipeline Condition Assessments

Brown and Caldwell

Process Mechanical

Brown and Caldwell

Program/Construction Management

Brown and Caldwell

Pump Stations and Meter Vaults

Smith & Loveless, Inc.

Pumps/Pump Systems

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Regulation/Compliance

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Regulatory Compliance

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Aqua Engineering

Residuals/Waste Management

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Resource Recovery

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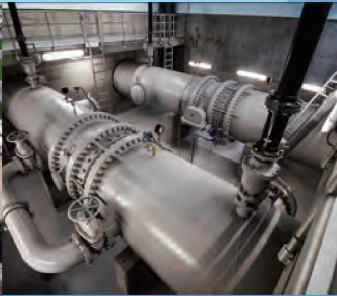

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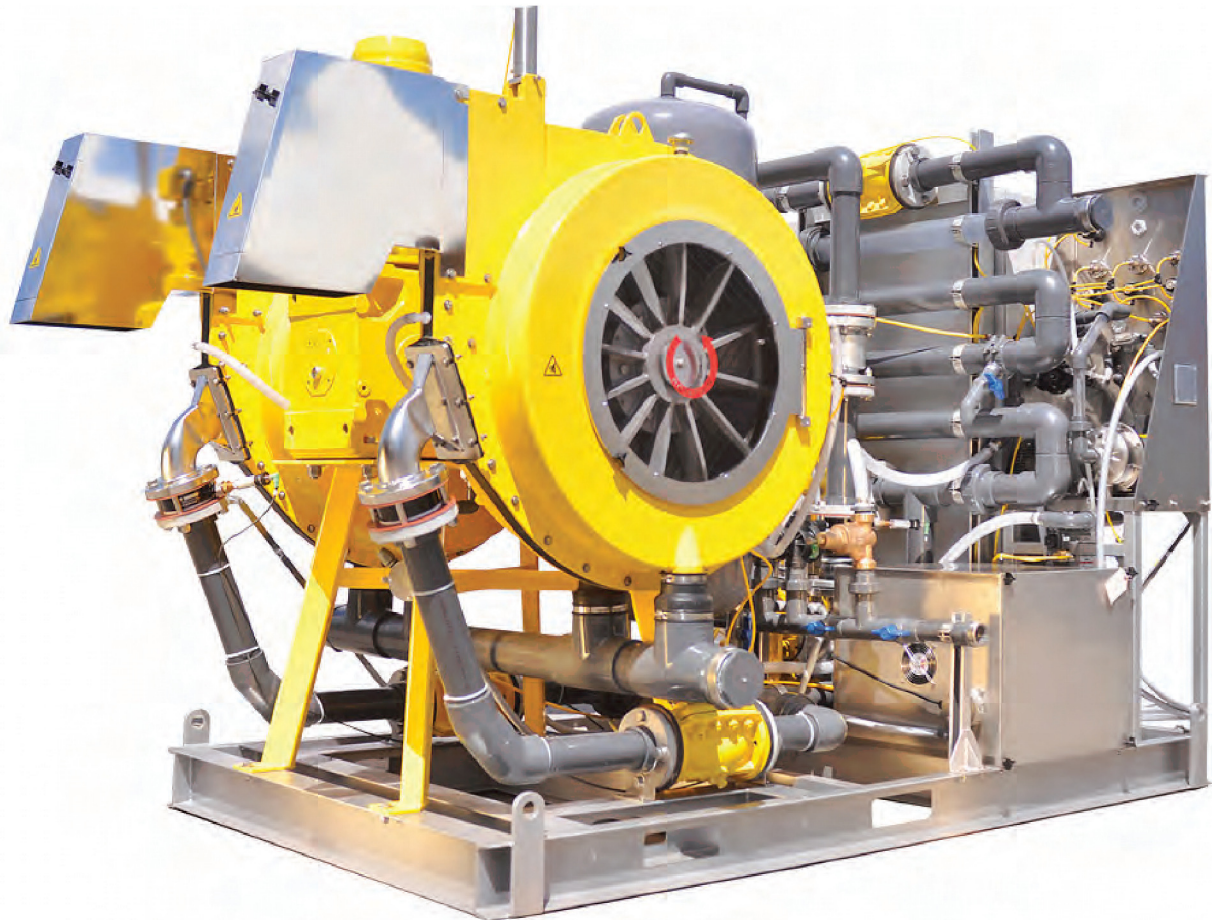


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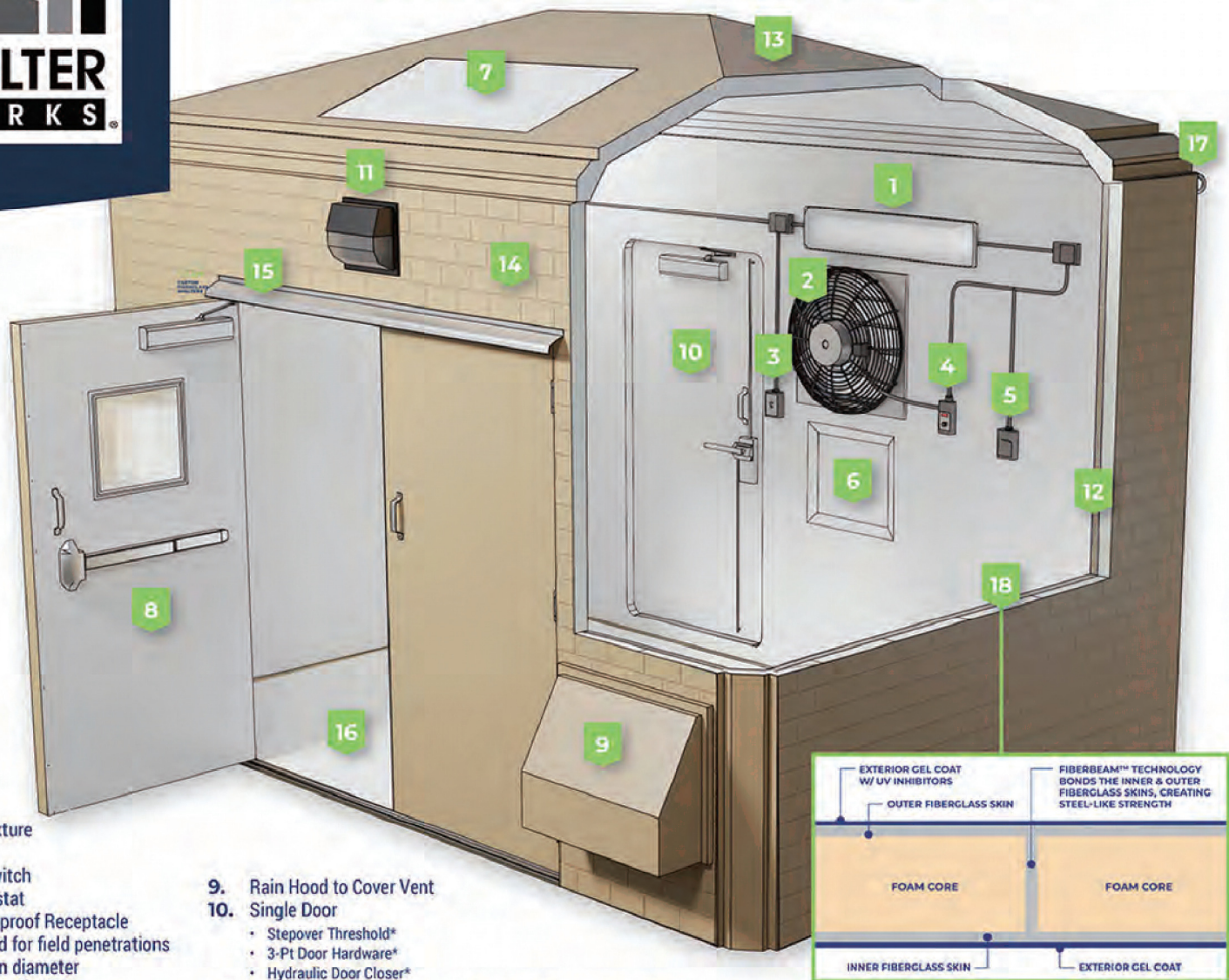


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